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these skills. (Contains 32 references.) (Author/CR)

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Challenging Students to Think:

Making Critical Thinking and Writing Central to the "Basic" Course

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Running Head: Critical Thinking

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Abstract

Many times, college students are exposed to the communication discipline solely through the basic public speaking course, allowing limited opportunity to experience critical thinking and writing within the discipline. This paper examines the importance of teaching critical thinking and writing skills in the basic course, encouraging educators to develop students' cognitive intellect through the application of these skills.

Literature Review

> "To succeed in college, undergraduates should be able to write
> and speak with clarity, and to read and listen with comprehension."
> (Boyer, 1987, p.73)

For most students, accomplishing the above with proficiency would take several classes, however one course has the ability to succeed in teaching these tasks: the basic communication course. The basic course is fundamental to a university's core curriculum, and in many instances it may be the only communication course a student encounters throughout his/her college career. Thus, the basic course assumes an important role in the university curriculum (Ford & Wolvin, 1993; Gibson, Hanna, & Huddleston, 1985). Students often think that the main skill they will obtain from a basic

course is how to deliver effective presentations. The basic course, however, offers students a variety of skills that will last them a lifetime. These skills include critical thinking, speaking and writing.

Learning these skills will be beneficial for students, however research indicates that not all instructors are effective in teaching these skills. French and Rhoder (1992) argue that most teachers have not been trained to teach thinking skills and strategies. College and university teachers advocate critical thinking and writing as a fundamental goal of education, but limited evidence demonstrates the success of implementing critical thinking in the classroom (Keeley, Shemberg, Cowell, & Zinnbauer, 1995; Sechachari, 1994). Keeley et al. (1995) and Perkins (1985) indicate that most classrooms are greatly lacking in critical thinking activities. Seshachari (1994) argues that while many teachers pride themselves on their critical thinking and writing assignments, results indicate that writing by students does not necessarily guarantee better grades. We assume as educators that we are accomplishing such goals, however the larger question may be; are we meeting the students' needs? Thus, great care needs to be taken to ensure that the critical thinking and writing by the students is something not only effectively learned by the student, but effectively taught by the instructor. Doing so will challenge students to apply their skills and create improved overall academic performance.

Critical Thinking

The term "critical thinking" is used in many classrooms, however a clear explanation of critical thinking is necessary in order to know how to implement it into the classroom. Most scholars agree that critical thinking involves skill (ability) and disposition (attitude) (Beyer, 1997; Garside, 1996; Kennedy, Fisher, & Ennis, 1991;

Wilen & Phillips, 1995). Words such as "higher cognitive skills," "metacognition," "creative thinking," "reasoning," and "problem-solving" are all associated with critical thinking and used in educational settings to describe critical thinking. Thus, critical thinking means to make effective use of our thinking skills.

Students need to realize that the goal of learning is thinking (Costa, 1983). Too many times students read materials, memorize them and repeat the material back to the instructor, which is a process that undermines the goal of "thinking" if that is the only measure of assessment used in the classroom. Unfortunately, this message is the one many times given to the students. The basic communication course, however, is one that can actively engage the students to become involved in the thinking and learning process. French and Rhoder (1992) argue that the "learner must construct learning and meaning, not be the recipient of learning" (p. 60). As Idol and Jones (1991) indicate, teaching goes beyond the subject matter; it needs to address the teaching of thinking itself. Studies assert that students who are given instructions on thinking generally have higher scores in outcome measures than their counterparts (Idol & Jones, 1991; Nickerson, Perkins, & Smith, 1985). In order for students to excel, we must be ready to teach them to think. How then does one accomplish such a task? Understanding the cognitive thinking process and skills related to critical thinking can help guide our teaching practices.

Wilen and Phillips (1995) argue that useful thinking skills include "those associated with acquiring, interpreting, organizing, and communicating information; processing data in order to investigate questions; solving problems and making decisions; and interacting with others" (p. 135). Critical thinking then is more than just thinking, it involves communicating those thoughts to others. Garside (1996) echoes this thought

when she argues that without opportunities for students to engage in student-to-student dialogue or orally communicating in the classroom, students "fail to learn how to gather, analyze, synthesize, or assess information" (p. 212). Oral communication can help students internalize course concepts and assignments more effectively, thus allowing for them to critically think and speak about their experiences.

Historically, some leading scholars have paved the way for critical thinking pedagogy. In the 1930's, John Dewey (1933) created the term "reflective thinking" to refer to the thinking in which a person turns a subject over in the mind, giving it serious consideration. Dewey also supported problem-solving and going beyond the subject matter alone (Kennedy, Fisher, & Ellis, 1991). Watson and Glaser (1939) were also pioneers in critical thinking and argued that critical thinking was a persistent effort in looking at knowledge, weighing evidence, interpreting data, creating logical relationships between propositions, and drawing justified conclusions about the material at hand. In other words, critical thinking is demonstrating clear argumentation structure.

Bloom, Engelhart, Furst, Hill, and Krathwohl (1956) have contributed to the understanding of critical thinking. Bloom et al. (1956) created six specific objectives of cognitive thinking: (1) knowledge, (2) comprehension, (3) application, (4) analysis, (5) synthesis, and (6) evaluation. These objectives are hierarchical in nature with evaluation requiring the highest level of cognitive thinking. Idol and Jones (1991) indicate that the top three levels (analysis, synthesis, and evaluation) are associated with critical thinking. In addition, this hierarchy claims that achievement of the higher-ordered levels of thinking requires success of the lower levels. Thus, evaluation needs to encompass the ability to perform all previous levels.

A student's ability to understand and master critical thinking varies with age. Piagetian stage theory (1967) has served as the explanation for an individual's development throughout childhood. It is argued that by formal-stage learning (ages 11-12 to adulthood), an individual has the ability to coordinate and apply abstract reasoning and solve problems through systematic hypothesis testing (Piaget, 1967).

Given these explanations of critical thinking, one would think that college-aged students would be able to easily apply critical thinking skills in the classroom. Research indicates, however, that not all students have reached the formal stage of learning by the time they reach college as may be typically assumed. In fact, many younger college-aged students have not attained all of the formal operations of thinking (Hester, 1994; Kennedy, Fisher, & Ennis, 1991; Lehman, 1963; Nickerson, Perkins, & Smith, 1985). Lehman (1963) studied the changes in college students' critical thinking, attitudes, and values in college. He discovered that there was a significant change from freshmen to seniors and that most of the change occurred in the freshmen and sophomore years. If these changes take place in the first few years of college, one can speculate whether the skills learned in the introductory courses have a direct impact on a student's formal stages of learning. If educators assume that students already have these cognitive abilities, we may be glossing over some of the fundamental skills students need in order to be academically successful. Thus, we need to perhaps spend more time on developing and teaching these skills in order for students to be competent writers and oral communicators. As noted, having the ability for higher-ordered skills may not necessarily mean practicing and fine-tuning that ability on one's own.

Wanting to implement critical thinking does not indicate that students do not originally think on their own, rather the goal of critical thinking is to stretch a student's thinking to high-quality thinking. Beyer (1997) argues that flaws in students' thinking is not because of an inherent mental deficiency, but low-quality thinking is a natural human behavior. Humans are too quick to jump to conclusions instead of suspending judgment on issues until all relevant alternatives have been discovered. We seem to have a natural tendency to view situations from one-point of view and do not consciously attend to, evaluate, and alter our mental processes before making decisions (Beyer, 1997). In other words, it is easier for us to make a decision with what we already know instead of stretching our mental capacity in looking at all angles and learning new things about the topic at hand. Thus, the goal of critical thinking is to create higher-quality thinking in students; to make use of their thinking skills.

Writing

One can critically think about material, but higher-quality thinking also involves the reading and writing of organized arguments. White (1993) argues that a difficulty of assessing communication skills stems partially from the conceptions of what is being measured. He indicates that learning writing does not always assume critical thinking. But being able to write critically using higher-ordered thinking skills does involve more than basic writing, such that

> when we learn spelling and sentence structure, we do what we do specifically because that is the way they are done; that is, we do not think for ourselves. But when we develop arguments, conduct research, or solve problems, such

imitation is not only insufficient, but it defeats the purpose; we must think for ourselves, as individuals, if we are to write well. (p. 106)

From this viewpoint, it seems obvious that critical thinking involves more than just thinking; it also involves reading material in order to write effectively about what is being thought.

The process of writing and learning are powerfully linked (Brent & Felder, 1992). Several scholars agree that writing is fundamental to learning knowledge and communicating that knowledge (Brent & Felder, 1992; Kloss, 1996; Sublett, 1993). Others further indicate that effective writing includes clarity, consistency, variety and logic (Boyd, 1995; Caprariis, 1996; Hester, 1997; Leahy, 1995; O'Flahaven & Trierney; 1991; White, 1993). O'Flahaven and Tierney (1991) propose three essential writing abilities learners use to demonstrate critical thinking; planning, translating, and reviewing. These skills should also be promoted in the basic course when students are creating presentations. Planning involves defining the rhetorical goal, considering the intended audience, and generating ideas through brainstorming and organizing information. During translation, ideas are put into text. Style, syntax and word choice are considered in relation to the audience and situation. Reviewing involves a post hoc inspection of choices; and making any changes necessary to create a solid text. The authors explain that these three processes are continuously taking place as one creates text. The writer moves in and out of these stages when needed throughout the process of writing.

The process of writing is closely related to the teaching of critical thinking and problem solving. White (1996) argues that when we teach writing, we need to think of it

as more than just correctness of grammar and syntax. Writing now involves the creativity of higher-ordered thinking, which takes time and patience. Medhurst (1989) argues that students need to learn how to share their findings in clearly structures, argumentative prose writing. He proposes that "learning to think critically is one thing; being able to produce a written account of that thinking is something else…" (p. 206).

Given these arguments, it is evident that critical thinking encompasses the reading and writing of effective arguments. As educators, we need to help students develop clear writing through research skills, synthesis of material and presentation of arguments. Because good writing involves more than just sentence structure, we also must be cautious to understand that college students may not have learned all the skills involved in critical writing. We need to be available to help them develop those skills that they can use throughout their college career.

<u>Suggestions for Basic Course Application</u>

In order to accomplish effective critical thinking in the classroom, we need to create active participation, rather than passive modes of instruction. Teachers need to change their methods of presentation from lecture modes to more interactive, argumentative styles of instruction in order to make students think and take responsibility for their actions and behaviors (Garside, 1996; McPeck, 1990). This means more than just having interactive group work in the classroom, but encouraging motivation among the students while engaging in the group activities.

Garside (1996) states that students need to "elaborate, defend, and extend their positions, opinions, and beliefs. They think more deeply when they investigate the paths thinking takes on the way to a conclusion"(p. 215). The basic course classroom provides

the outlet for these opportunities to students. Students are expected to orally present their topics in class. However, many times is appears that students do not actively engage themselves with their topics and treat the presentations as just "another assignment." If we can implement critical thinking through reading, writing and interaction with others in the classroom, students will then become critical thinkers and make sound decisions about their choices. As Garside (1996) asserts, classrooms that promote critical thinking include active participation by the students, meaningful interaction with the material, and oral interaction with other students. The basic communication course is a perfect climate to promote interaction and presentation of ideas in a variety of ways, which may not be accessible through other "lecture-based" or larger classrooms.

How then does one try to create a climate to promote critical thinking? Creating ways to include Piaget's formal learning stage (1967) and incorporating the six cognitive objectives from Bloom et al.'s taxonomy (1956) are both ways to urge students to higher-thinking. From obtaining knowledge about an issue to clear evaluation of positions surrounding that issue, students will be able to think and articulate their ideas clearly to others. As indicated earlier, one cannot assume that all students have reached the complete formal-learning stage; thus instructors need to create a variety of opportunities and skills for students to understand what they are doing and to build upon those skills for the future.

To teach thinking is to be student-centered and achievement-oriented (Hester, 1997). In order for students to develop critical thinking, instructors must be willing to create a comfortable atmosphere. Although teachers may not be able to thoroughly engage all students, how teachers communicate with students does impact students'

motivations and willingness to participate in activities (Frymier & Shulman, 1995).

Student motivation is a vital component of the learning process (Ames & Ames, 1991;

Carrell & Menzel, 1997). In general, Ames and Ames (1991) argue that student

motivation involves a sense of self-worth, a sense of accomplishment of reaching goals,

and the ability to determine successes. Unfortunately, not all students are self-motivated.

We can as educators, however can try to determine those who have negative motivation

in order to try to increase the motivation level in students. The following is an adapted

list of behaviors associated with negative motivation (Ames & Ames, 1991, p. 255).

<u>Behaviors Associated with Negative Motivation</u>

*attribute failure to lack of ability – low opinions of own ability

*tend to give up easily

*procrastination

*deny that they can do something – don't want to try

*low participation level – takes the easy way out

*have difficulty making decisions

*set unrealistic high or low goals for themselves

*negative or low expectations

*many off-task behaviors

*anxious or nervous about school work

These behaviors may be typical of what we sometimes see in the basic course,

particularly since the basic course is required for many students. There are ways

however, in which we can try to promote positive behaviors and motivation in the

classroom. Doing so means that we as instructors also must be motivated in the

classroom and be a role model for the students. The following are suggestions from

Ames and Ames (1991, p. 260) for teachers to implement in order to creating a

motivating and supportive atmosphere in the classroom.

Guidelines for Enhancing Motivation

I. REDUCE SOCIAL COMPARISON
    *avoid social comparison
    *reduce public evaluation/emphasis on success and grades
    *communicate performance expectations in advance
    *use a variety of grading procedures

II. INCREASE INVOLVEMENT IN LEARNING
    *use cooperative learning methods
    *use peer tutoring
    *use games and simulation
    *allow student choices – method, pace, content

III. FOCUS ON EFFORT
    *emphasize student progress
    *reinforce learning/effort
    *make known that mistakes and errors are part of learning
    *require "reasonable" effort

IV. PROMOTE BELIEFS IN COMPETENCE
    *focus on role of effort and strategy in learning
    *make grades contingent on reaching goals
    *communicate positive expectations
    *make plans with students for improvement

V. INCREASE CHANCES FOR SUCCESS
    *use individualized instruction
    *provide skills training
    *use peer tutoring
    *use cooperative team learning

Incorporating these ideas into the basic communication takes time and patience.

As educators, we may already practice several of these motivational strategies in our classrooms. However, routinely incorporating elements from all five areas into our teaching may take a conscious effort on order to truly meet the students' needs.

Implementing these suggestions will promote student motivation, while increasing their

critical thinking, speaking, and writing skills. While some students think the introductory

communication course is referred to as the basic course, it is obvious that teaching

students to critically think and critically write is far from "basic." I would like to think of

it as the foundational course for life.

> Teachers who believe that their task is to educate the
>
> Socrates within students can make the classroom a place
>
> for asking as well as answering questions.

> (Garnet Miller)

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